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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,748	04/11/2002	Shlomo Ben-Haim	IMP031.228770	7537

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WOLF, BLOCK, SHORR AND SOLIS-COHEN LLP
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EXAMINER

HOLMES, REX R

ART UNIT	PAPER NUMBER
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3762

NOTIFICATION DATE	DELIVERY MODE
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10/10/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO@WOLFBLOCK.COM

Office Action Summary	Application No. 09/980,748	Applicant(s) BEN-HAIM ET AL.	
	Examiner REX HOLMES	Art Unit 3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5,6,8,12,14,32-35,39,44,49,50,52 and 53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 34,35,39 and 44 is/are allowed.
- 6) ☒ Claim(s) 5,6,8,12,14,32,33,49,50,52 and 53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

1. Claims 34-35, 39 and 44 allowed.
2. The indicated allowability of claims 5-6, 8, 12, 14, 32, 33, 49, 50, 52 and 53 is withdrawn in view of new rejections. Rejections follow.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 5-6, 8, 12, 14, 49, 50, 52 and 53 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In this case the specification is silent as to a pulse with a rate greater than 10Hz and amplitude less than 30mA and a peak power less than 100W. The specification does say that a pulse having a frequency above 100Hz and a amplitude between -30 to 30mA can be used on rabbit hearts (Spec, Page 13, ll. 5-9), but the specification is silent as to the peak power for this instance and the 30mA has not been stated to be used with a rate "greater than" 10Hz. There is no support in the specification for the combination of frequency, amplitude and power for use on human hearts.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mehra (U.S. Pat. 5,683,429) in view of Hess et al. (U.S. Pat. 5,713,929 hereinafter "Hess").

8. Regarding claim 32, Mehra discloses an example that includes a frequency greater than 10Hz (~20Hz -200 Hz), pulse energy less than 1 joule (~0.05 J), with a burst duration of at least 100 ms (Col. 11, ll. 64-67; Col. 12, ll. 1-21). Mehra further discloses that the system includes circuitry to sense for depolarizations (i.e. contractions of the heart) and accordingly modifying the signal (Col. 11, ll. 5-53). Mehra teaches a system for defibrillating the atrium of the heart using pacing level stimulation without the use of defibrillation shocks. A person of ordinary skill in the art, upon reading the

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reference, would also have recognized the desirability of improved methods for treating ventricular fibrillation. Hess teaches a method of pacing to prevent atrial fibrillation and further discloses that the methods can be used to treat ventricular fibrillation (Col. 1, ll. 6-13). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to try methods of Mehra for ventricular fibrillation, as a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. In turn, since Mehra discloses a method of pacing the atrium to defibrillate the heart without a defibrillation shock, and the prior art discloses a pacing method to treat fibrillation that can be used in either the atrium or the ventricles, it would have been obvious to use the method of Mehra in the ventricles.

9. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mehra (U.S. Pat. 5,683,429) in view of Hess et al. (U.S. Pat. 5,713,929 hereinafter "Hess") and further in view of KenKnight (U.S. Pat. 5,797,967).

Regarding claim 33, Mehra discloses an example that includes a frequency greater than 10Hz (~20Hz -200 Hz), pulse energy less than 1 joule (~0.05 J), with a burst duration of at least 100 ms (Col. 11, ll. 64-67; Col. 12, ll. 1-21). Mehra further discloses that the system includes circuitry to sense for depolarizations and accordingly modifying the signal (Col. 11, ll. 5-53). Mehra teaches a system for defibrillating the atrium of the heart using pacing level stimulation without the use of defibrillation shocks. A person of ordinary skill in the art, upon reading the reference, would also have recognized the desirability of improved methods for treating ventricular fibrillation. Hess teaches a method of pacing to prevent atrial fibrillation and further discloses that the

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methods can be used to treat ventricular fibrillation (Col. 1, ll. 6-13). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to try methods of Mehra for ventricular fibrillation, as a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. In turn, since Mehra discloses a method of pacing the atrium to defibrillate the heart without a defibrillation shock, and the prior discloses a pacing method to treat fibrillation that can be used in either the atrium or the ventricles, it would have been obvious to use the method of Mehra in the ventricles. Mehra in view of Hess teaches the claimed invention but fails to disclose the use of fencing signals to inhibit the propagation of an activation wave. However, KenKnight discloses the use of fencing signals to inhibit and control activation fronts as set forth in Column 11, lines 12-34 to provide a signal to inhibit the and control activation fronts. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system as taught by Mehra in view of Hess, with the use of fencing signals as taught by KenKnight, since such a modification would provide the predictable results of a fibrillation system that inhibits activation fronts allowing for control of the heart chambers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to REX HOLMES whose telephone number is (571)272-8827. The examiner can normally be reached on M-F 8:00 - 5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. H./
Examiner, Art Unit 3762

/George R Evanisko/
Primary Examiner, Art Unit 3762